WAVE Partners: Educational Institutions

Water Alliances for Voluntary Efficiency (WAVE) is part of the U.S. Environmental Protection Agency's (EPA's) long-term effort to prevent pollution and reduce demands on the nation's water and energy resources. WAVE is a voluntary partnership that encourages commercial businesses and institutions to examine water usage and implement water efficiency programs. Since its inception in 1992, the WAVE program has helped the lodging industry increase water efficiency. WAVE is now seeking to promote these same principles in educational institutions such as schools, colleges, and universities.

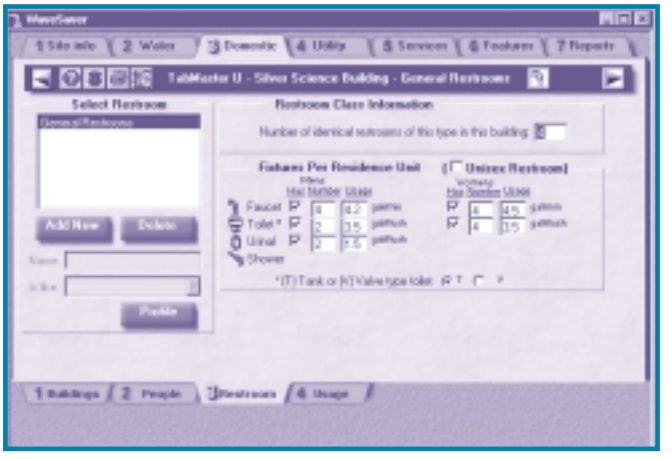
How Can My School, College, or University Become More Water Efficient?

Many schools, colleges, and universities are taking a serious look at their water use and are finding significant opportunities to cut costs and improve services through water efficiency. There are many opportunities to reduce water use in educational institutions—laundry facilities; bathroom fixtures such as toilets, showers, and faucets; landscape irrigation; heating and cooling; food service operations and cafeterias; laboratories; and sports facilities. By installing water-efficient equipment and integrating water efficiency practices into everyday operations, a 30 percent reduction in water consumption is possible. These cost-effective practices conserve energy and valuable natural resources and can significantly reduce your institution's water, sewer, and energy bills, and chemical and maintenance costs. Schools, colleges, and universities can also use their unique position as educators to help promote water efficiency to the students and the community by example and through educational campaigns.

In most cases, increasing water efficiency is simple to do and quick to pay off. Choose the water efficiency practices that are economically viable and offer the greatest rewards for your facilities.

How Can I Determine Which Efficiency Measures Are Best for Me?

WAVE•Saver, a windows-based software package available from EPA, enables physical plant engineers and managers to survey water use and identify specific water saving opportunities. The program includes full-motion video demonstrations, color photos and graphics, and online tutorials. WAVE•Saver allows you to track water use throughout your institution, including laundry operations, irrigation, and cooling towers. You can then identify and evaluate a variety of water efficiency measures to save water in



WAVE•Saver Fixed Data Input Screen

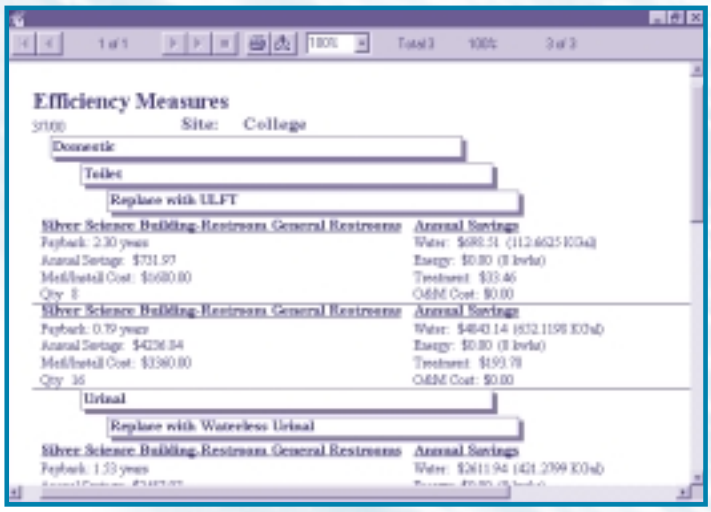
Water Alliances For Voluntary Efficiency

those functions. WAVE•Saver has tracking, budgeting, and forecasting features, and also includes an automated feature to make completing and submitting efficiency reports as simple as printing. Operating instructions are included in the "help" feature on the CD-ROM, making a paper copy unnecessary.

Water Conservation Goes to College

Interested in learning how to save $235,000 each year in water costs? That is how much Columbia University estimates it saves through one of the largest water-efficiency upgrades ever attempted at a university. Even with the cost of hiring an outside firm to design and implement all aspects of the work, Columbia cut its water bill by 25 percent and realized a payback period of only 1.8 years.

Columbia University, located on a 30-acre campus in Manhattan, New York, serves more than 10,000 undergraduate and graduate students. The university's water-efficiency upgrade focused on domestic water use, including replacement of toilets, showerheads, and faucet aerators with high-efficiency models. Columbia also installed a cross-campus water-pumping loop, which allows it to control water pressure and flow to each campus building. With the loop installed, the university can more closely monitor water consumption and can eliminate all water storage tanks on campus, making annual tank cleaning and flushing unnecessary. Overall the loop has drastically reduced the number of leaks and the amount of system maintenance required, resulting in further savings. Using the annual savings from these projects, the university has financed additional energy conservation projects with longer payback periods.



WAVE•Saver Efficiency Report Screen

"Using water efficiently helps to address a number of issues that facility managers face. Water conservation measures helped us reduce maintenance, energy, and water costs by pinpointing high usage areas, replacing bathroom fixtures with low flow models, reducing leaks, and improving metering. At the same time, we helped meet our environmental goals."

Tony Trocchia
Assistant Vice President of Facilities Operations, Columbia University

How Can I Join?

For more information on how WAVE can help you identify water efficiency measures to meet your needs, call 202 564-0623/0624. You also can write to the WAVE Program at U.S. EPA (4204M), Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460; or visit our Web site at <www.epa.gov/owm/genwave.htm>. Join WAVE today and make the commitment to take a leading role in conserving our vital water resources while saving money.

Printed on paper that contains at least 30 percent postconsumer fiber.